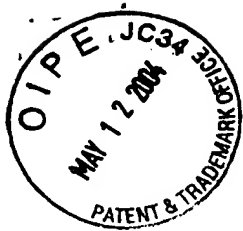


FIG. 1A



2/18

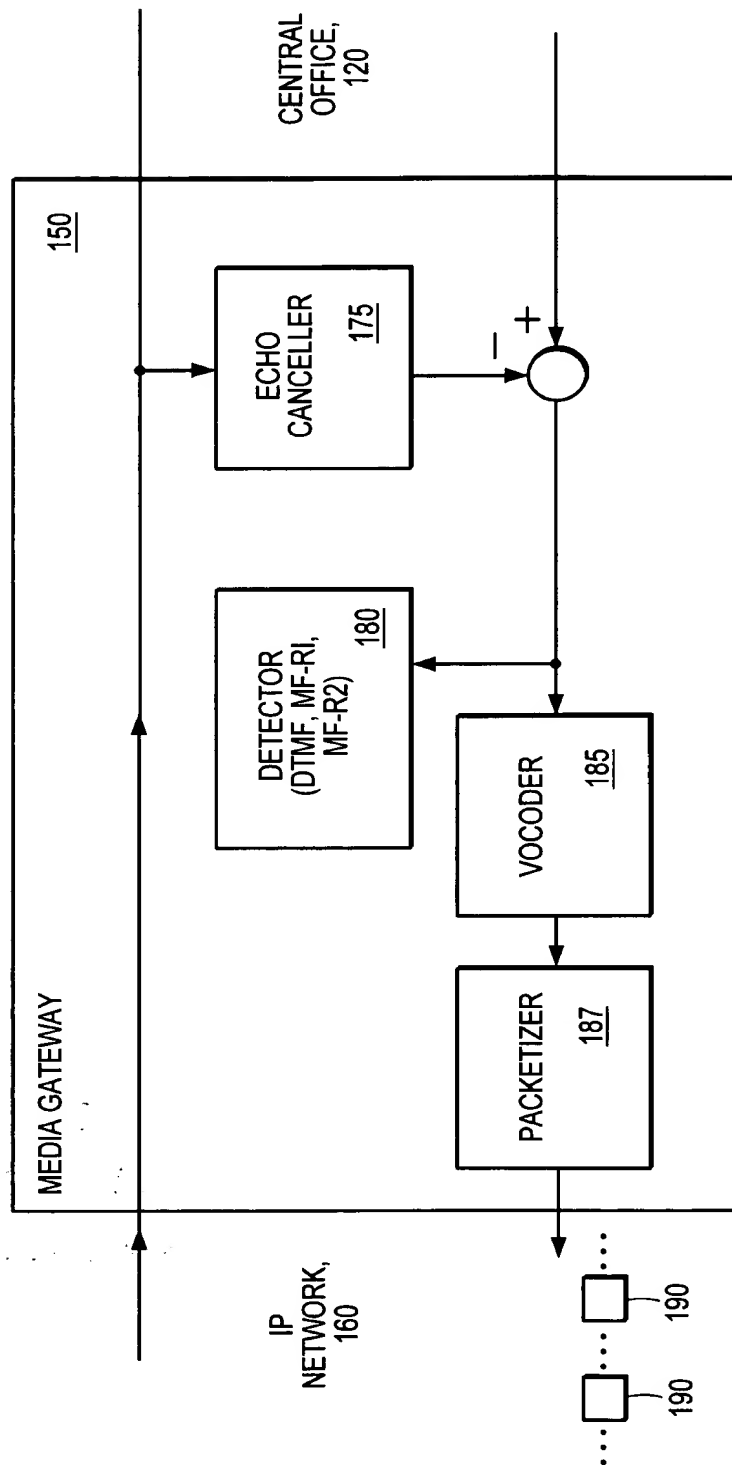
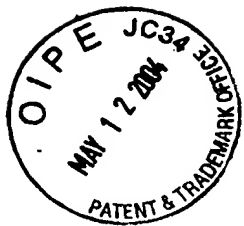


FIG. 1B



3/18

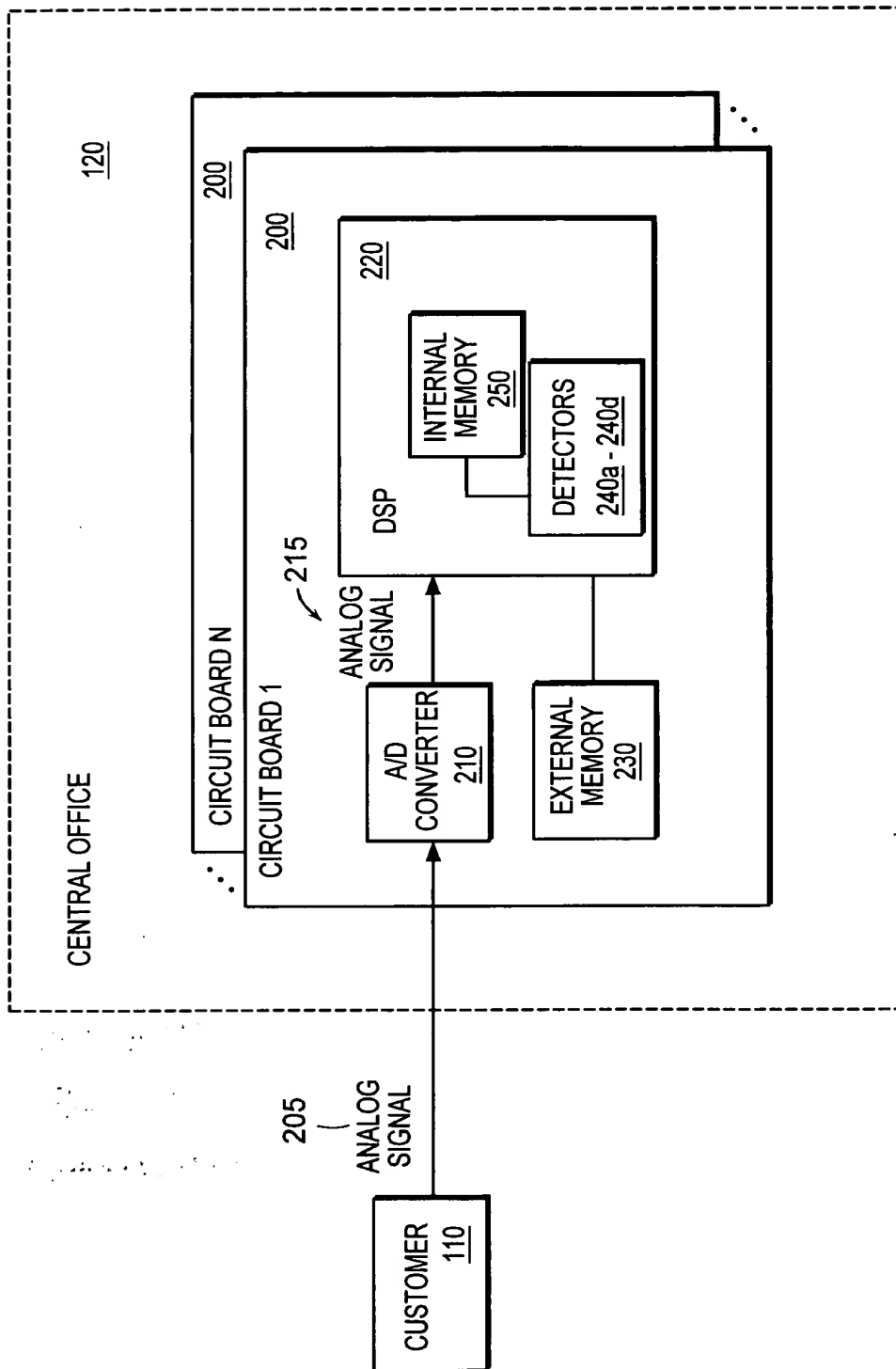
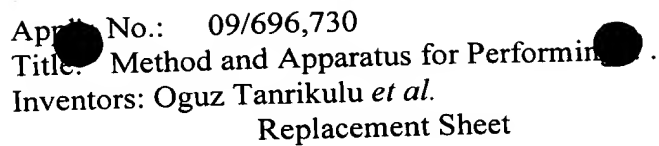
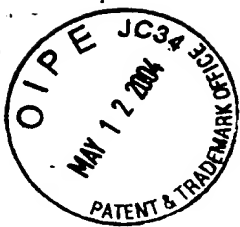


FIG. 2





5/18

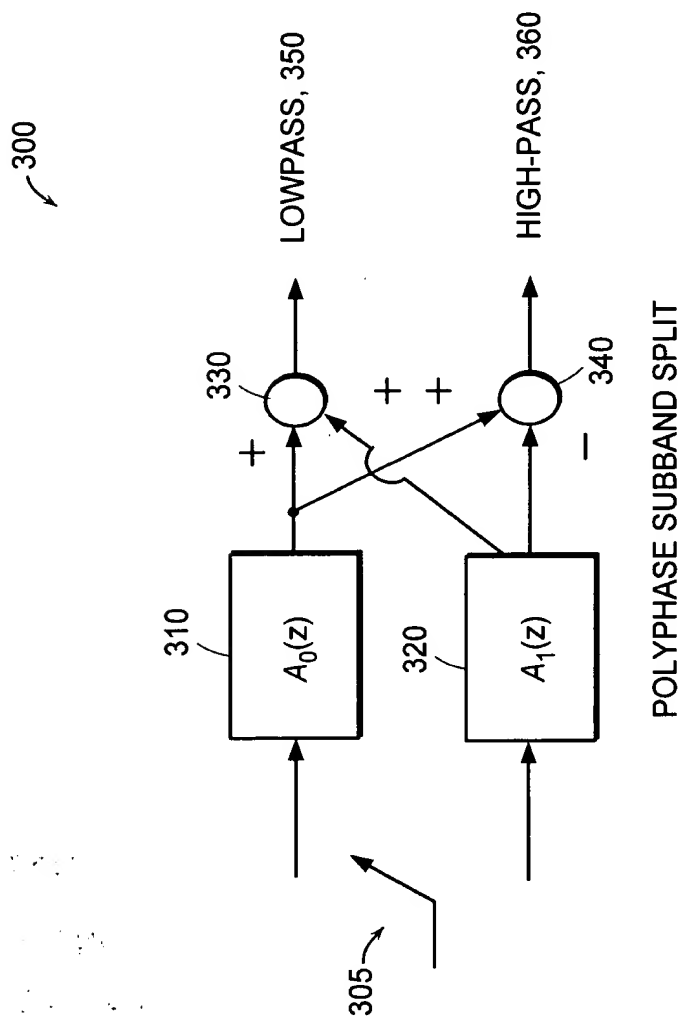
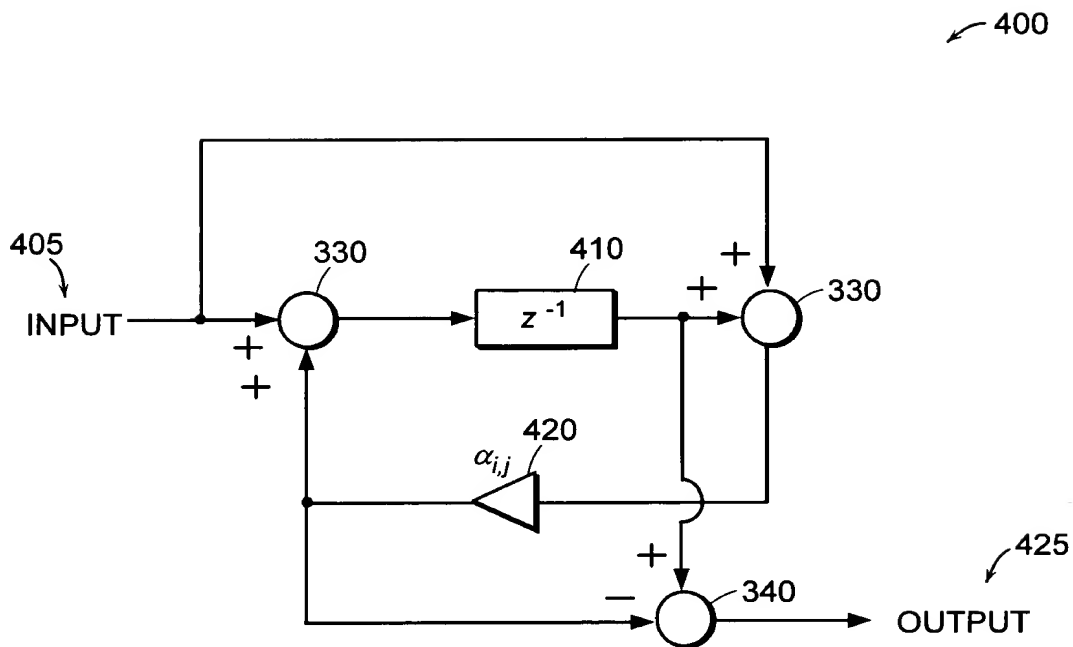
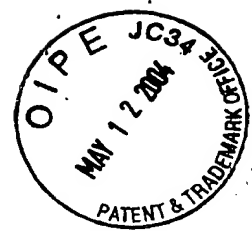
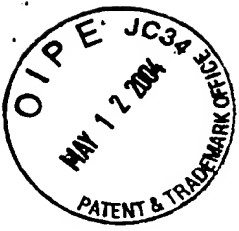


FIG. 4

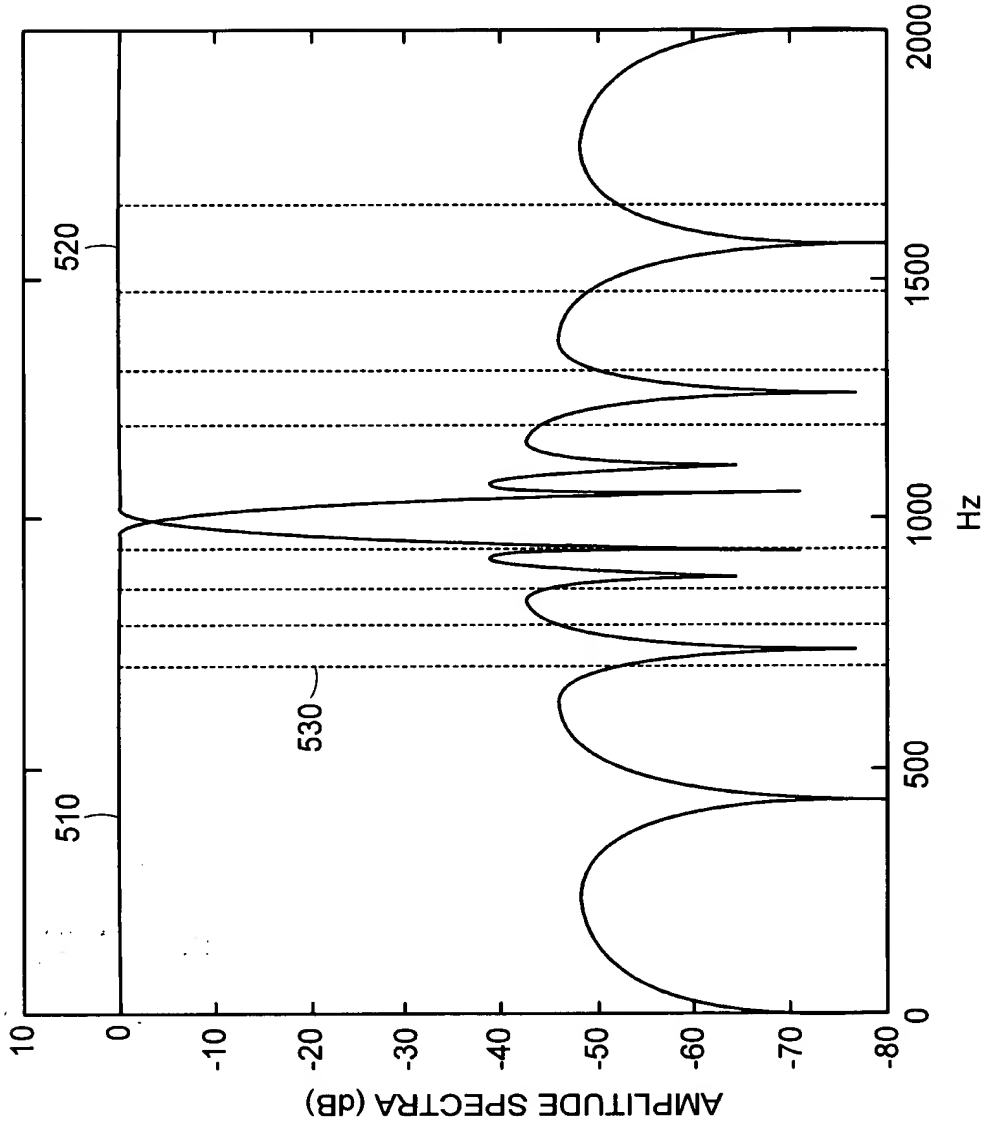


COMPACT IMPLEMENTATION OF A FIRST-ORDER ALL-PASS SECTION

FIG. 5

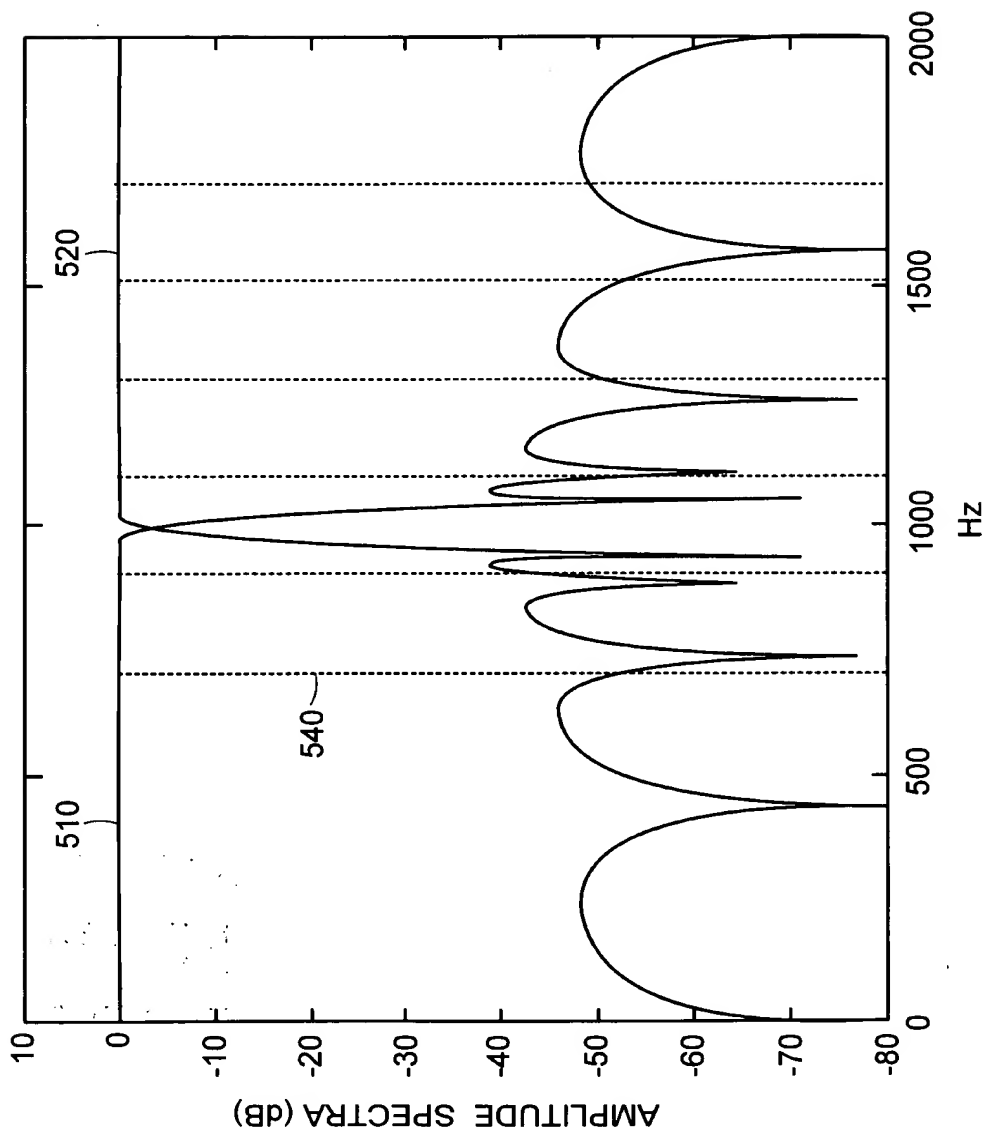
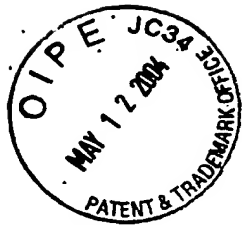


7/18



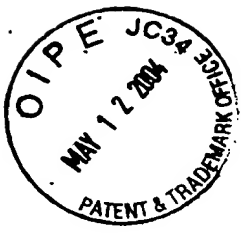
BAND-SPLIT FILTERS AND DTMF

FIG. 6

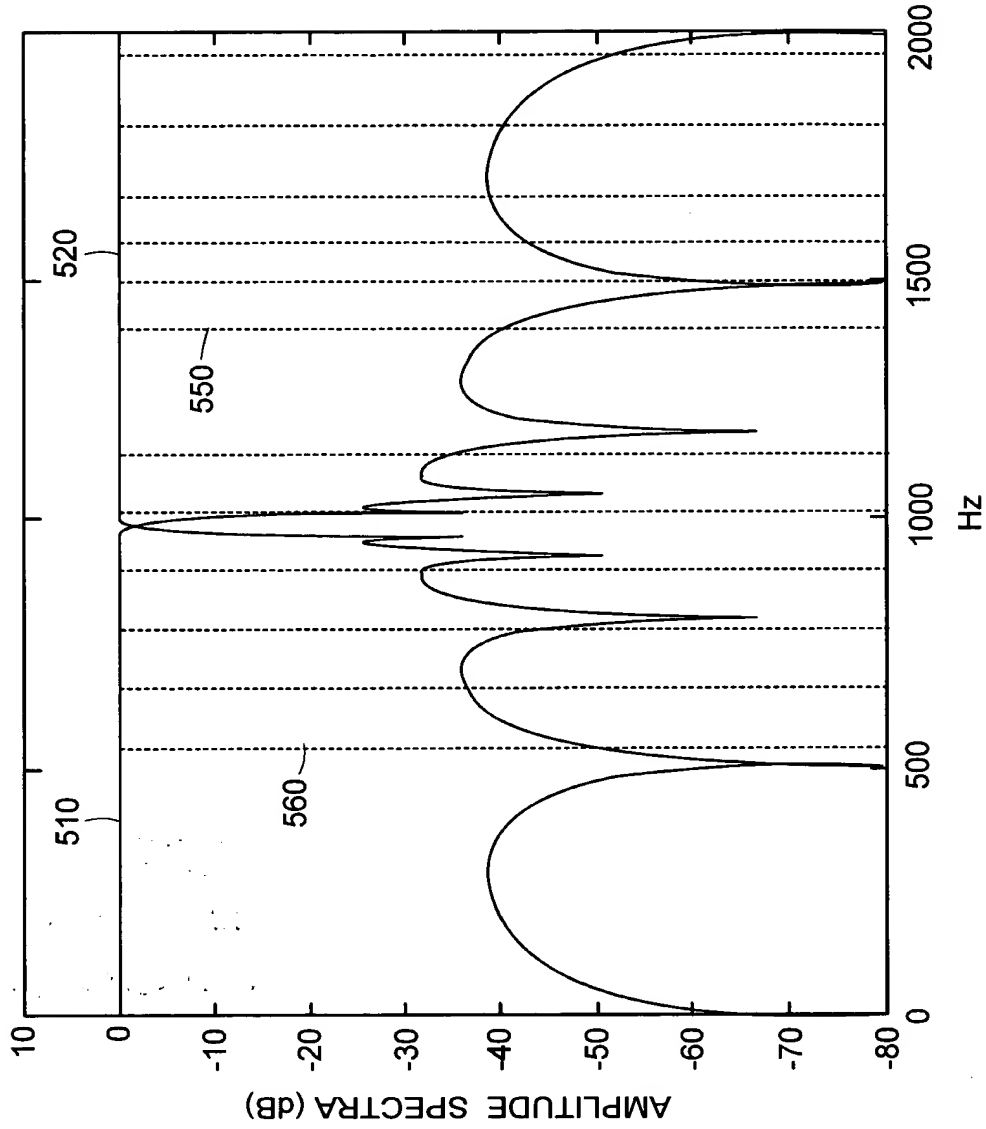


BAND-SPLIT FILTERS AND MF-R1

FIG. 7

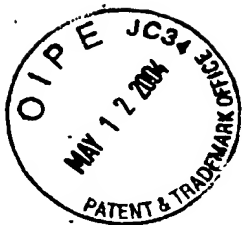


9/18

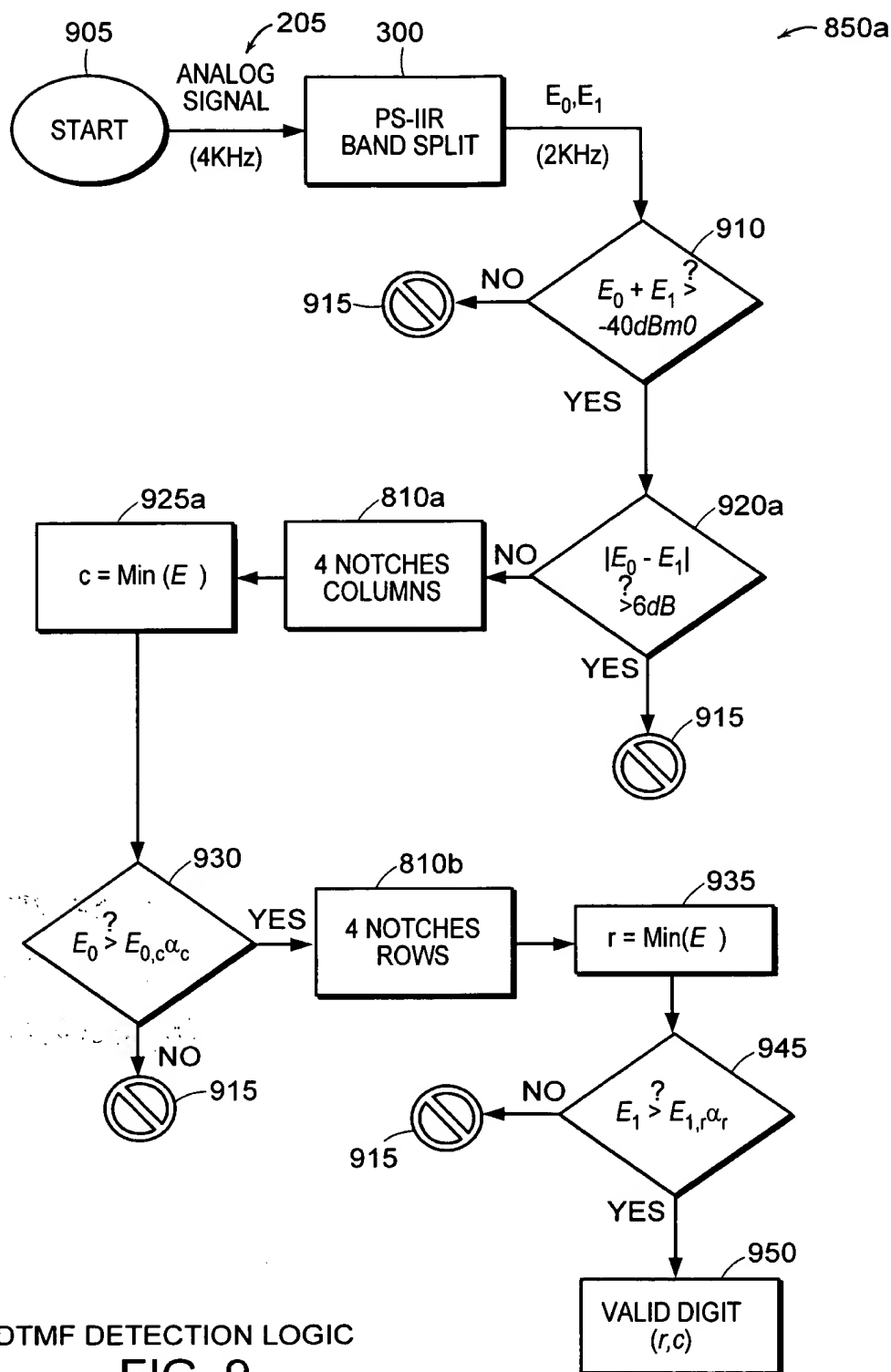


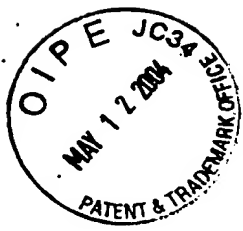
BAND-SPLIT FILTERS AND MF-R2

FIG. 8

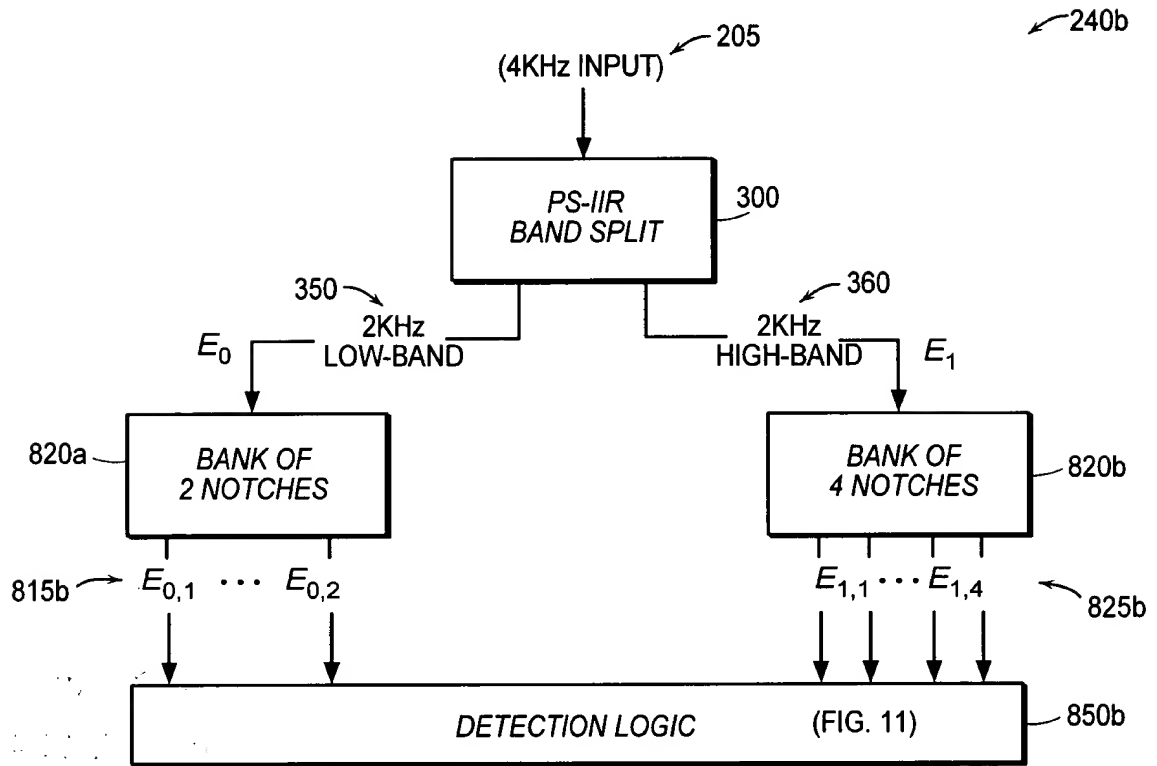


10/18



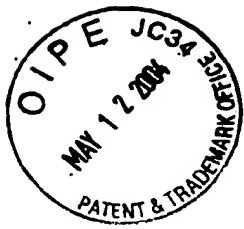


11/18



MF-R1 DETECTOR BLOCK DIAGRAM

FIG. 10



12/18

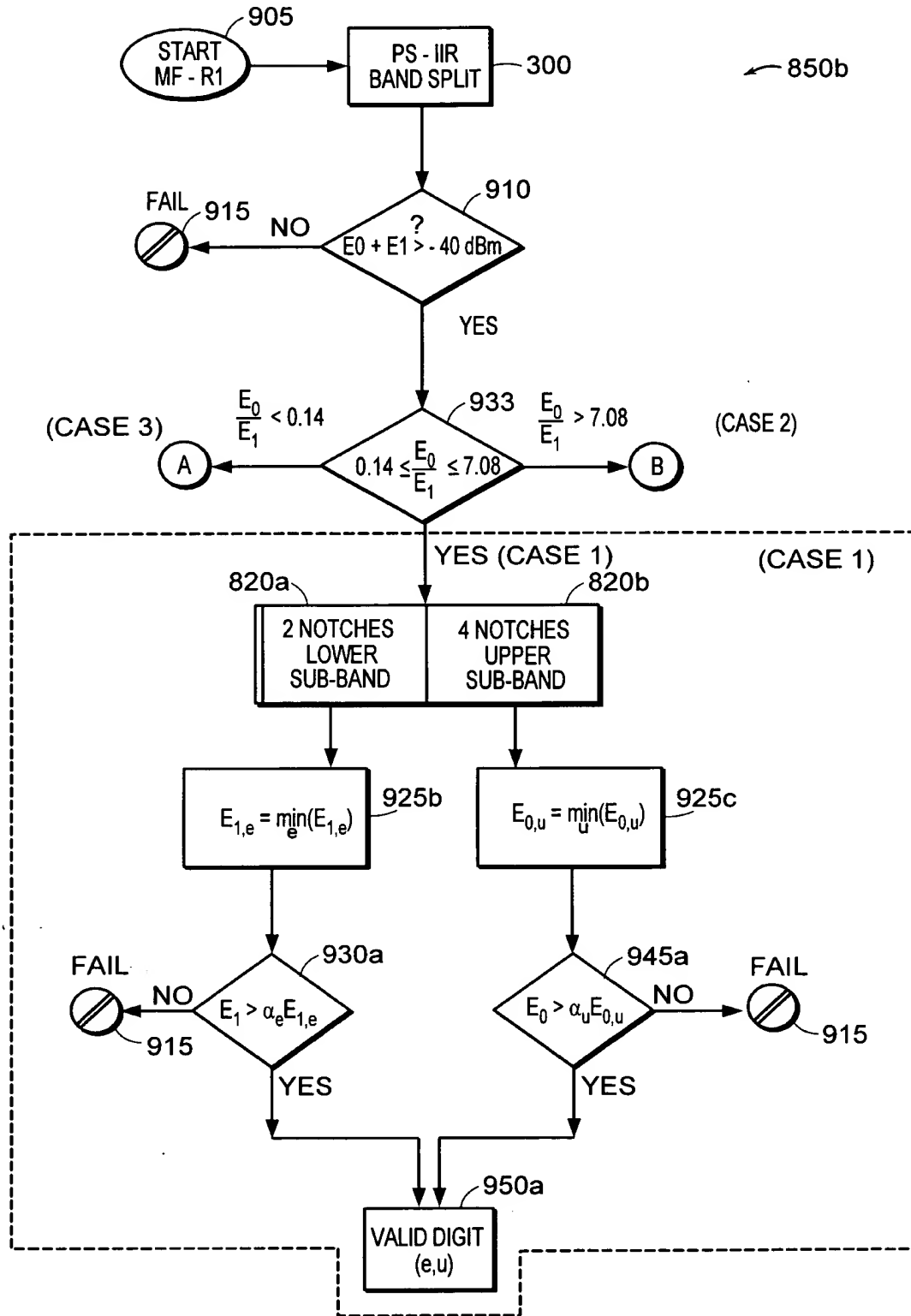
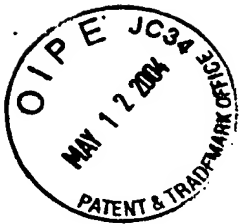


FIG. 11A



13/18

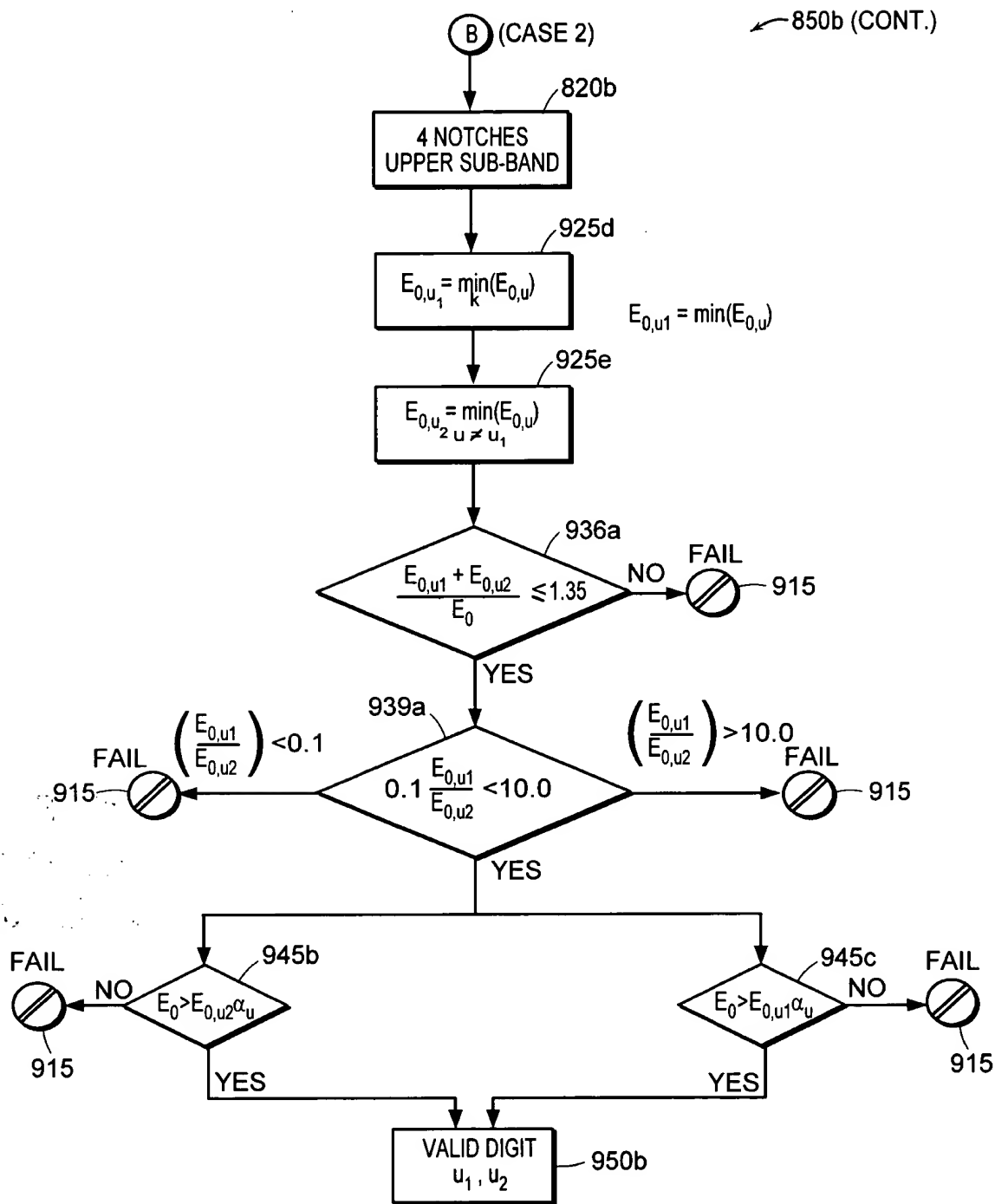


FIG. 11B

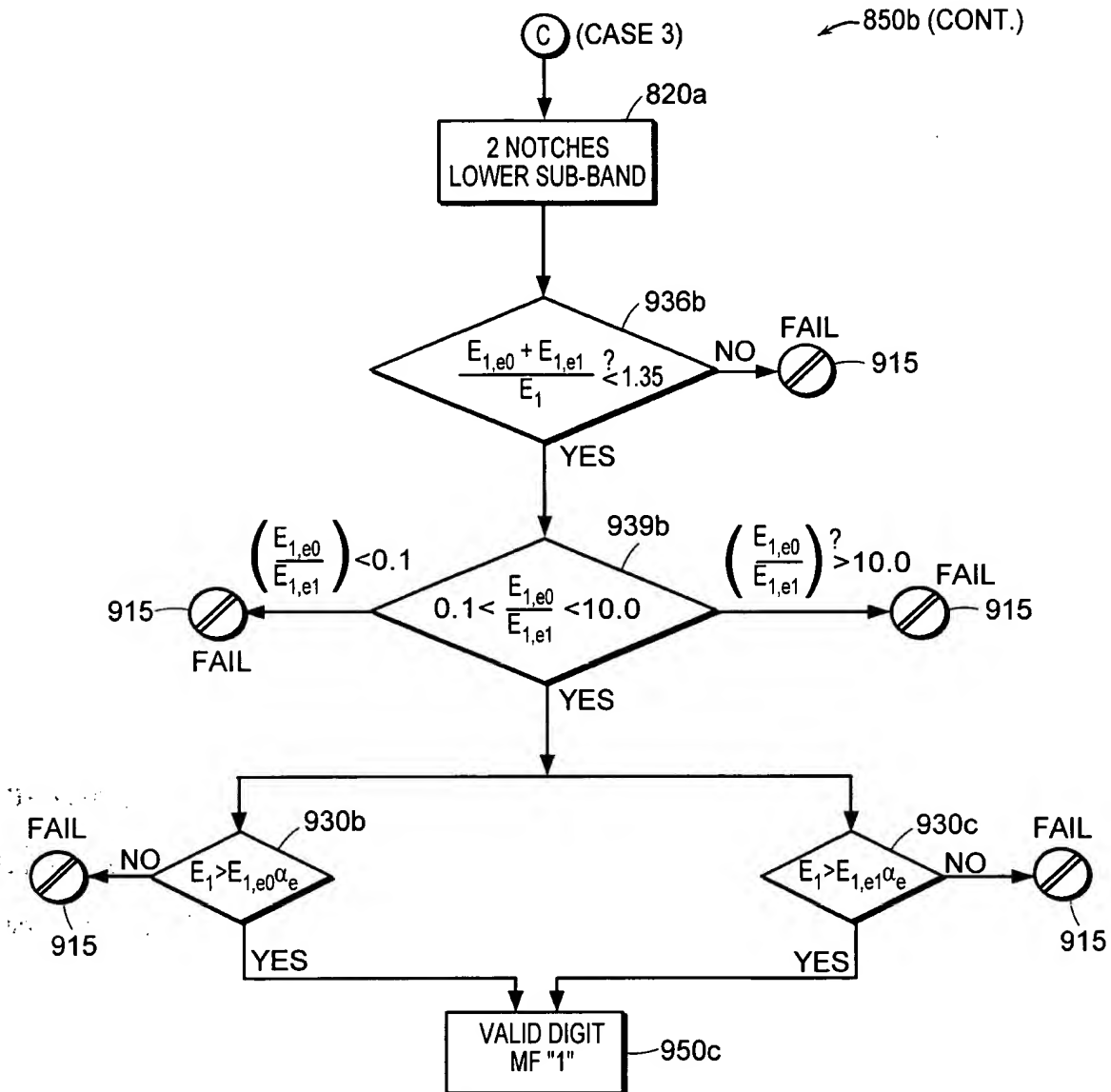
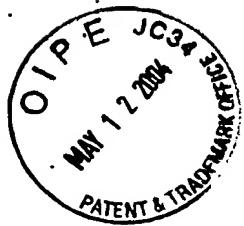
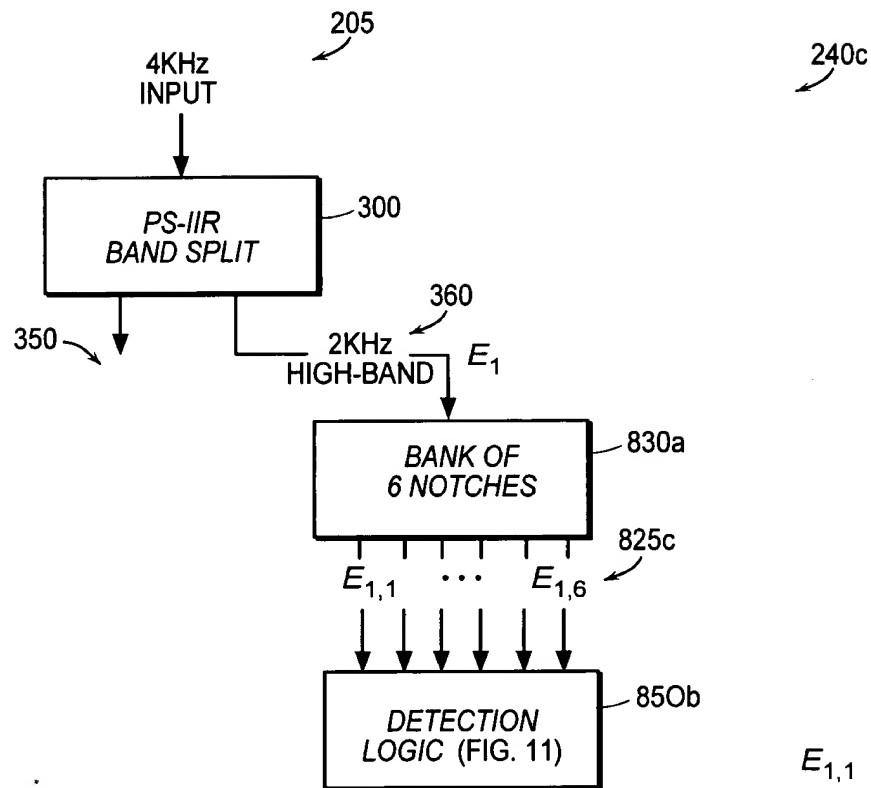
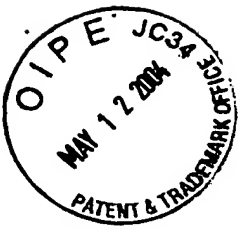
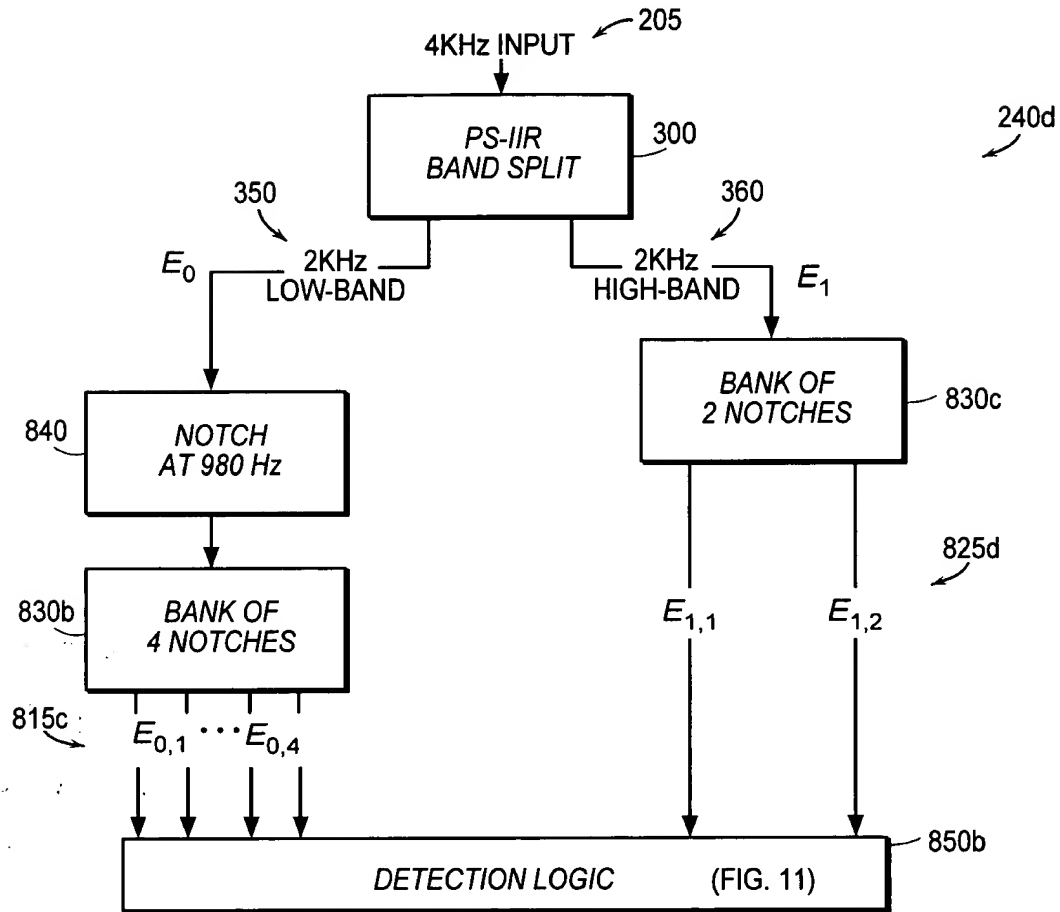
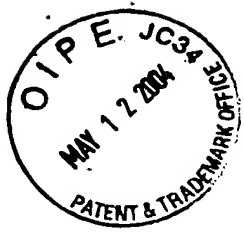


FIG. 11C



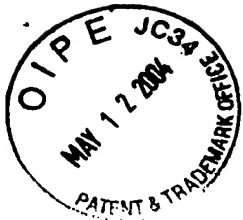
MF-R2 FORWARD DETECTOR BLOCK DIAGRAM

FIG. 12



MF-R2 BACKWARD DETECTOR
BLOCK DIAGRAM.

FIG. 13



17/18

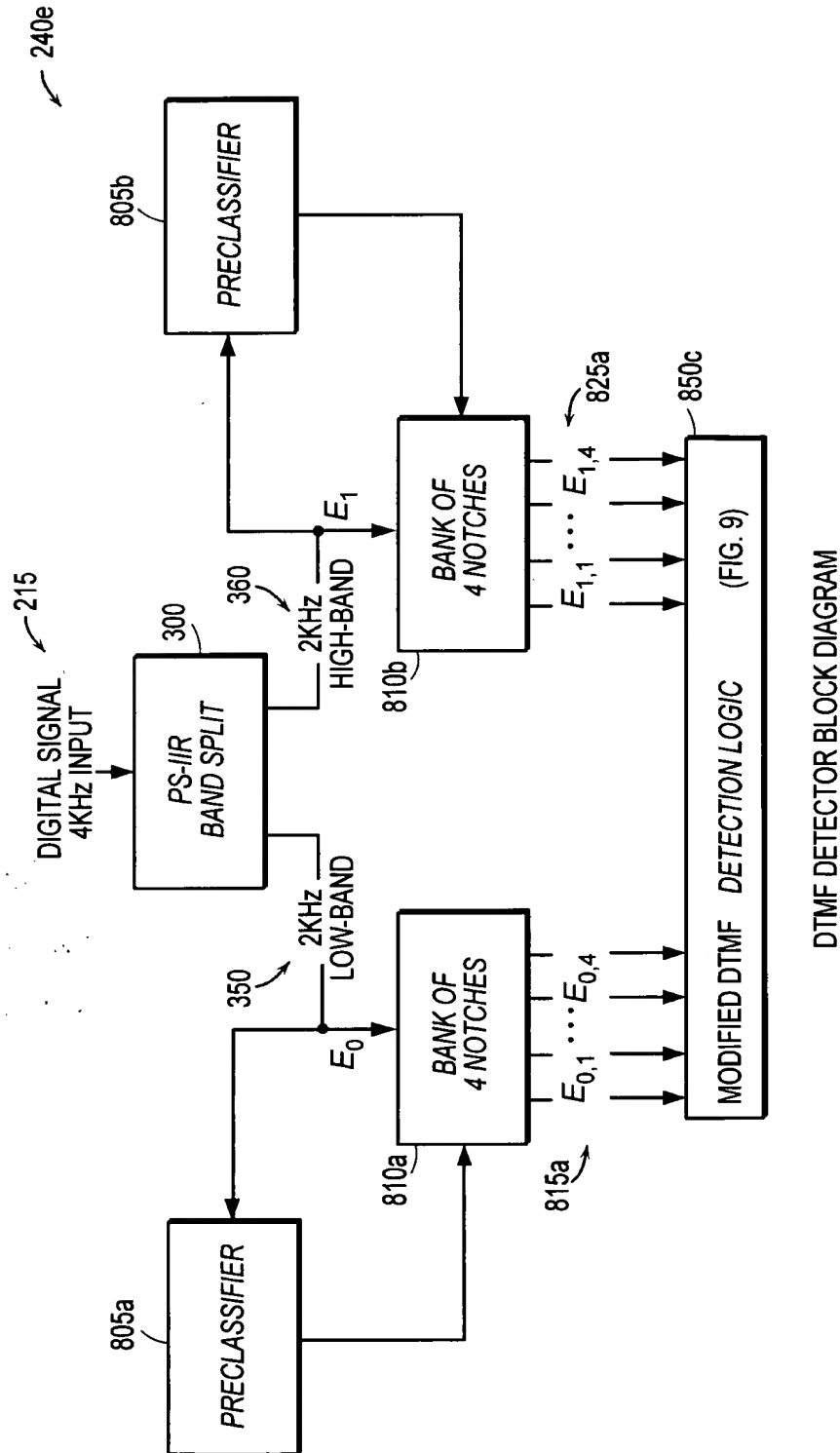
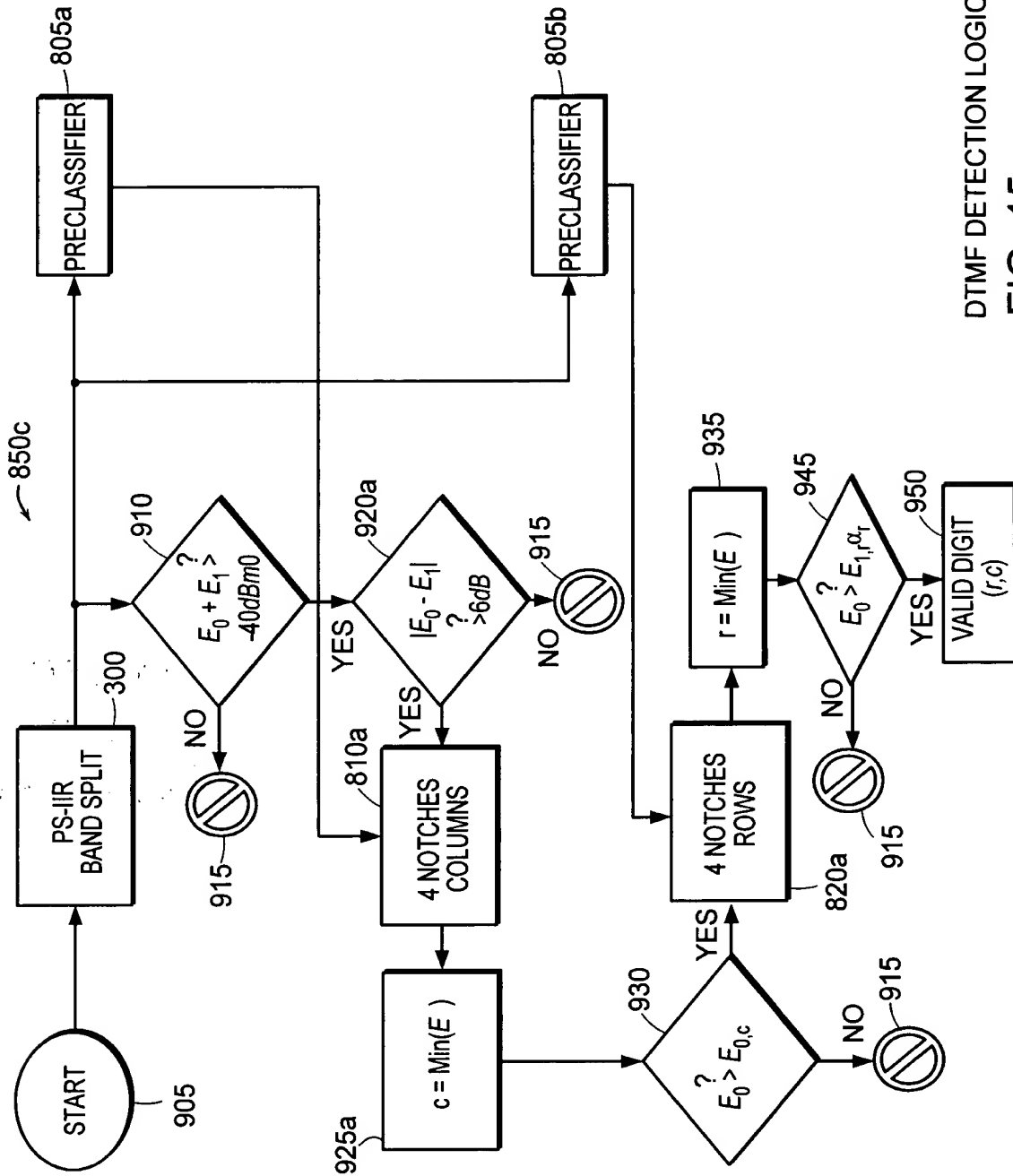
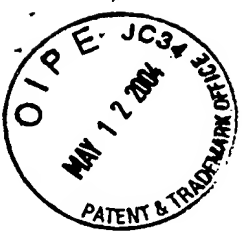


FIG. 14



DTMF DETECTION LOGIC
 FIG. 15